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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/702,185	10/30/2000	Shirley Lee	10982031-1	1662

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EXAMINER

SHOSHO, CALLIE E

ART UNIT PAPER NUMBER

1714

DATE MAILED: 06/26/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/702,185

Applicant(s)

LEE ET AL

Examiner

Callie E. Shosho

Art Unit

1714

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on 21 April 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☐ Claim(s) 1-17,21-27,30,32 and 34-57 is/are pending in the application.
- 4a) Of the above claim(s) 1-16 and 34-49 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) 17,21-27,30,32 and 50-57 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

1. All outstanding rejections except for those described below are overcome by applicants' amendment filed 4/21/03.

The new grounds of rejection as set forth below are necessitated by applicants' amendment and thus, the following action is non-final.

**Claim Rejections - 35 USC § 112**

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 17, 21-27, 30, 32, and 50-57 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claims 17 and 27 have each been amended to recite that the ink is "in an aqueous solution". It is the examiner's position that this phrase fails to satisfy the written description requirement under the cited statute since there does not appear to be a written description requirement of the above phrase in the application as originally filed, *In re Wright*, 866 F.2d 422, 9 USPQ2d 1649 (Fed. Cir. 1989) and MPEP 2163.

As support for the insertion of the above phrase into claims 17 and 27, applicants point to page 7, lines 26-27 of the present specification. However, this portion of the specification only

discloses that an anionic binder component needs to be included in the water-soluble dye-based ink. That is, this portion of the specification only requires that the ink contain both anionic binder and water-soluble dye. It is not clear how this portion of the specification supports the recitation that the ink is in the form of an aqueous solution. Clarification is requested.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 17, 21-27, 30, 32, and 50-57 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 17 and 27 each recite that the cationic polyelectrolyte has "1,000-10,000 molecular weight". The scope of the claims is confusing because it is not clear if this refers to weight average molecular weight, number average molecular weight, etc. Clarification is requested.

**Claim Rejections - 35 USC § 103**

6. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Art Unit: 1714

7. Claims 17, 23-27, 32, 52-55, and 57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kurabayashi et al. (U.S. 5,700,314) or Takahashi et al. (U.S. 5,624,484) either of which in view of Watanabe et al. (U.S. 6,080,229).

The rejection is adequately set forth in paragraph 10 of the office action mailed 1/23/03, Paper No. 17, and is incorporated here by reference.

With respect to the new limitations added to the present claims, it is noted that col.5, lines 19-20 of Kurabayashi et al. and col. 5, lines 47-49 of Takahashi et al. disclose that the quaternary ammonium compound has molecular weight of 1000 or less while both Kurabayashi et al. (col.9, lines 46-50) and Takahashi et al. (col.11, lines 48-53) disclose using anionic polymers which include copolymer from monomers including acrylic acid which would intrinsically form aqueous solution as presently claimed.

#### **Response to Arguments**

8. Applicants' arguments and declaration filed 4/21/03 have been fully considered but they are not persuasive.

Specifically, applicants argue that both Kurabayashi et al. and Takahashi et al. disclose cationic component, i.e. quaternary ammonium compound, of less than 1000 molecular weight, which is outside the scope of the present claims which require polyelectrolyte such as quaternary ammonium compound having molecular weight of 1000-10,000.

However, it is noted that col.5, lines 19-20 of Kurabayashi et al. and col. 5, lines 47-49 of Takahashi et al. disclose that the quaternary ammonium compound has molecular weight of 1000 or less, not less than 1000 as argued by applicants. Thus, the molecular weight of the quaternary

ammonium compound of either Kurabayashi et al. or Takahashi et al. does overlap the molecular weight presently claimed. Although the overlap is only at one point, i.e. at 1000, there is still overlap. Therefore, the quaternary ammonium compound of either Kurabayashi et al. or Takahashi et al. clearly meets the requirements of the present claims.

Applicants have submitted 1.132 declaration to establish the criticality of using polyelectrolyte which has molecular weight of 1,000-10,000 as presently claimed. However, given that Kurabayashi et al. or Takahashi et al. already disclose using polyelectrolyte having molecular weight as presently claimed, the declaration is not successful in establishing unexpected or surprising results over Kurabayashi et al. or Takahashi et al.

Applicants also argue that neither Kurabayashi et al. nor Takahashi et al. teach having anionic polymeric binder in aqueous ink solution and that Kurabayashi et al. teaches a water insoluble anionic resin which forms emulsion in the ink.

However, it is noted that both Kurabayashi et al. (col.9, lines 46-50) and Takahashi et al. (col.11, lines 48-53) disclose using anionic polymers which include copolymer from monomers including acrylic acid which would form aqueous solution as presently claimed. There does not appear to be a disclosure in Kurabayashi et al. that the anionic polymer is in the form of a resin emulsion as applicants argue. Clarification is requested.

Applicants argue that there is no disclosure in Watanabe et al. of polyelectrolyte having molecular weight as presently claimed or anionic binder in aqueous ink solution as presently claimed.

Art Unit: 1714

However, it is noted that Watanabe et al. is no longer used a primary reference against the present claims. Rather, Watanabe et al. is used as teaching reference, and therefore, it is not necessary for this secondary reference to contain all the features of the presently claimed invention, *In re Nievelt*, 482 F.2d 965, 179 USPQ 224, 226 (CCPA 1973), *In re Keller* 624 F.2d 413, 208 USPQ 871, 881 (CCPA 1981). Rather this reference teaches a certain concept, namely the use of polyvalent metal salt in fixer fluids which provides cations to the fixer fluid and in combination with the primary reference, discloses the presently claimed invention.

Similar arguments are made with respect to Yatake et al., which as noted by applicants, do not disclose polyelectrolyte as presently claimed. However, as noted above, Yatake et al. is used as teaching reference, and therefore, it is not necessary for this secondary reference to contain all the features of the presently claimed invention.

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

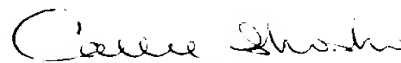
Art Unit: 1714

however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Callie E. Shosho whose telephone number is 703-305-0208. The examiner can normally be reached on Monday-Friday (6:30-4:00) Alternate Fridays Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 703-306-2777. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.



Callie E. Shosho  
Primary Examiner  
Art Unit 1714

CS  
June 24, 2003